

***Amendments to the Specification***

Please substitute the following paragraphs into the specification where noted.

Replace paragraph [0019] on page 5 with the following:

[0019] Figure 1. DNA sequence (SEQ ID No. 3) of a fusion protein having the sequence of the bovine C5-epimerase (non-bold - the entire sequence after the two colons in line 17) and the N-terminus of the mouse C5-epimerase (bold - the entire sequence before the two colons in line 17). The open reading frame (ORF) showing the polypeptide coding sequence is underlined.

Replace paragraph [0020] on page 5 with the following:

[0020] Figure 2. The complete DNA sequence of mouse C5-epimerase (SEQ ID No. 1).

Replace paragraph [0021] on page 5 with the following:

[0021] Figure 3. The complete amino acid sequence of mouse C5-epimerase (SEQ ID No. 2).

Replace paragraph [0022] on page 6 with the following:

[0022] Figure 4 (A-C). Alignment analysis of mouse C5-epimerase to other sequences showing regions of homology. The scores are shown on the top line and are listed in the column after the source of the sequence. The sequences are taken from the following sources: line 2: mouse liver (SEQ ID No. 4); line 3: bovine lung (SEQ ID No.

5); line 4: human EST (SEQ ID No. 6); line 5: *Drosophila* (SEQ ID No. 7); line 6: *C. elegans* (SEQ ID No. 8); line 7: *Methanococcus* (SEQ ID No. 9).

Replace paragraph [0023] on page 6 with the following:

[0023] Figure 5. Diagrammatic representation of the domain structure of the mouse C5-epimerase (SEQ ID No. 2). Solid rectangular box at the N-terminus: signal sequence (highly hydrophobic transmembrane (TM) sequence); hatched rectangular boxes: hydrophobic transmembrane (TM) or buried sequences; solid rectangular boxes within the peptide: conserved peptide sequences having greater than 50% similarity to the *C. elegans* 71.9 KD hypothetical protein.

Replace paragraph [0024] on page 6 with the following:

[0024] Figure 6A-6B. Figure 6A: Diagrammatic representations of the products of the tagged recombinant (bovine) C5-epimerase constructions. i: First active tagged recombinant (bovine) C5-epimerase construct. The specific activity was  $5 \times 10^5$  cpm/mg/h. ii: The most active recombinant (full mouse) C5 construction. The specific activity was  $2 \times 10^9$  cpm/mg/h. iii: Chimeric construct having both mouse and bovine sequences. The activity was 87% of the activity of the full-length mouse sequence. iv: Truncated mouse construct. The activity is the same as the bovine construct in "i". Figure 6B: sequence (SEQ ID No. 10) and domain information of the tag that preceded each of the recombinant constructs in Figure 6A.

After paragraph [0036], add new paragraph [0036a]

[0036a] Accordingly, the invention is also directed to a method of increasing the activity of a C5-epimerase, the method comprising: providing a first polynucleotide comprising a nucleotide sequence encoding a polypeptide, the amino acid sequence of which is at least 80% identical to a reference amino acid sequence selected from the group consisting of amino acids 35 to 154 of Figure 3 and amino acids 34 to 154 of Figure 3; attaching said first polynucleotide of (a) to a second polynucleotide encoding a C5-epimerase; and expressing the fusion polynucleotide.